



INVERTER CATALOGUE

WANSHSIN®

Wanshsin Seikou (Hunan) Co.,Ltd

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Official Website

Committed To Building A World-class Intelligent Electromechanical Brand

WANSHIN SEIKOU(HUNAN)CO., LTD.

COMMITTED TO BUILDING
A NO-LEAKAGE GEARBOX

SPECIALIZED REDUCER / REDUCTION MOTOR / INVERTER MANUFACTURER
INTELLIGENT AUTOMATION SOLUTION PROVIDER



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WANSHSIN SEIKOU(HUNAN)CO.,LTD.



WANSHSIN is a professional gearbox, gear motor and inverter manufacturer and intelligent automation complete solution provider, integrating R&D, production, sales and service. The products cover the light and heavy industry, are widely used in new energy, robots, automobile manufacturing, warehousing, logistics, food industry and other industries. WANSHSIN has gradually become a reliable long-term partner of those leading enterprises of relevant industries.

ENTERPRISE HONORS

2019	2020	2022
<ul style="list-style-type: none"> National high-tech enterprise 	<ul style="list-style-type: none"> Ministry of Industry and Information Technology of the People's Republic of China "specialized, special and new" key small giant enterprise Hunan Enterprise Technology Center 	<ul style="list-style-type: none"> 2022 Hunan Reducer Engineering Technology Research Center 2022 The 2nd Ningxiang Mayor Quality Award(Organization)
		
		

CORE COMPETITIVENESS



1、 Leading R&D Capability

Three major R&D centers have been established to lead the industry's high-quality development with innovation.

2、 Superior Quality Assurance Capability

We are the pioneer in introducing and launching the advanced automotive industry quality control standards (pre-planning of product quality) and have equipped with a large number of imported international advanced inspection/testing equipment to ensure product quality.

3、 Advanced Manufacturing Capability

We have hundreds of domestic advanced processing equipment with a total value of more than 100 million yuan, and our capacity is in a leading position in China.

4、 Fast Service Capability

Many distribution networks with wide coverage; High market share of medium gearbox; Spare parts warehouse inventory is sufficient; Short delivery cycle; Configure with a number of domestic TOP-level logistics providers; Fast after-sales response.

Product Series



WS600 High Performance Vector Control Inverter

WS600 series Inverter is a general-purpose vector inverter with reliable and stable performance, compact structure and easy to use, it can be used to drive asynchronous motor, synchronous motor and torque electric motor, widely used in CNC machine tools, cables, papermaking, hoisting, hoisting, fans, pumps, petrochemical industry, air compressor, textile machinery, plastic machinery, woodworking machinery, ceramic machinery, stone machinery and other industries.



CE Variable Frequency Driver for Construction Elevator

CE series variable frequency driver is a special model developed for the electronic control of SC100 / SC200 Construction Elevator. The system integrates the functions of frequency converter, braking unit, logic control unit, braking control unit and lifting weight limiter. It can be installed in three methods: wall mounted, semi embedded and full embedded. It has the advantages of comprehensive function, stable performance, exquisite appearance, convenient installation and maintenance, and provides customers with a set of high-performance Complete solution.



WSG20 Compact Vector Control Inverter

WSG20 series Inverter is a device for driving asynchronous motors, synchronous motors and Universal vector inverter for torque motors. Its performance is excellent, reliable and stable fixed, compact structure and easy to use. It can be widely used in CNC machine tools, Cables, papermaking, hoisting, hoisting, fans and pumps, petrochemical, Air compressor, textile machinery, plastic machinery, woodworking machinery, ceramic machine machinery, stone machinery and other industries.

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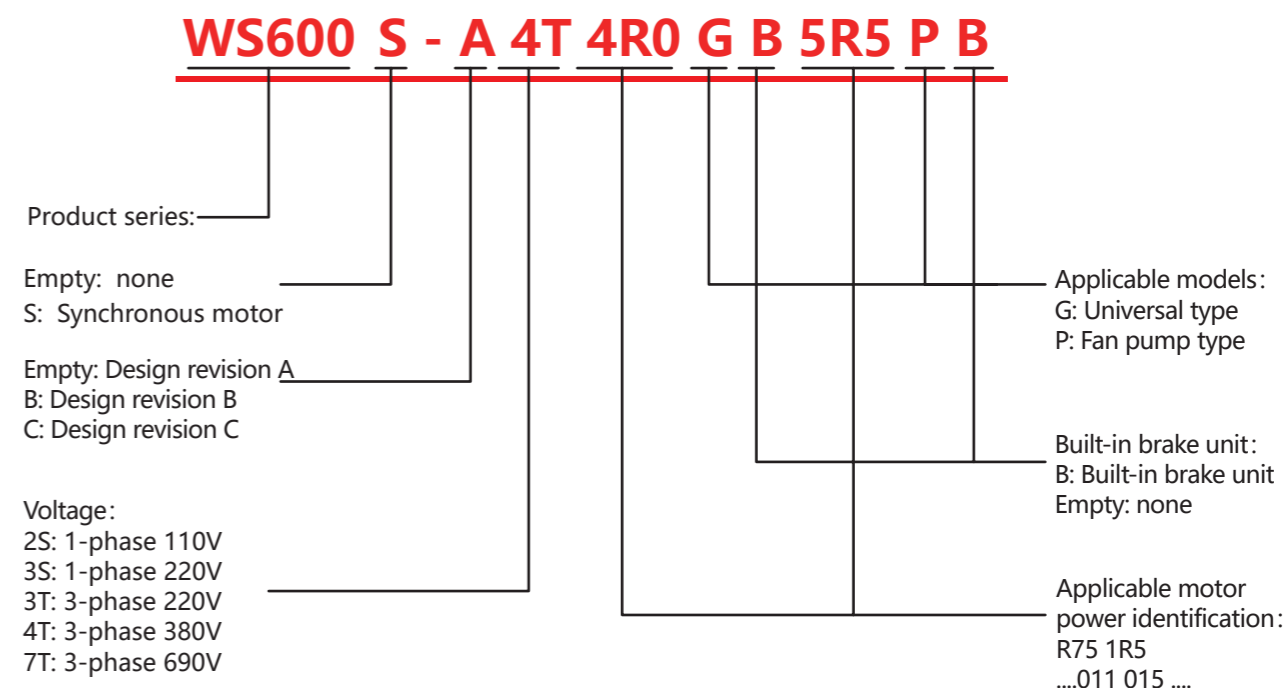
WS600 Series High Performance Vector Control Inverter

WS600 series inverter is a general-purpose vector frequency converter with excellent performance, reliability and stability, compact structure and strong ease of use. It can be used to drive asynchronous motor, synchronous motor and torque motor. It is widely used in CNC machine tools, cables, papermaking, lifting, fans and pumps, petrochemical industry, air compressor, textile machinery, plastic machinery, woodworking machinery, ceramic machinery, stone machinery and other industries.

Functional Features

- 0.5 Hz 180% starting torque (open loop), 0 Hz 150% starting torque (closed loop).
- Optional multiple control modes: VF control, open-loop flux vector, PG vector control mode;
- 1K ~ 16K carrier frequency can be automatically adjusted according to load characteristics;
- Simple PLC completes up to 16 segments of frequency logic for automatic control, and four kinds of acceleration and deceleration time for selection;
- "Excavator" feature, automatic torque control during operation;
- It is very convenient for users to extend the keyboard by using the standard network cable;
- Ten kinds of auxiliary frequency sources can flexibly realize auxiliary frequency fine-tuning frequency synthesis;
- The maximum frequency of field weakening control algorithm can exceed twice the fundamental frequency of the motor;
- The droop control feature enables the load to be evenly distributed when multiple frequency converters drive the same load;
- Precise speed control accuracy; Open loop control $\leq \pm 0.5\%$ (rated synchronous speed)
Closed loop control $\leq \pm 0.2\%$ (rated synchronous speed);
- Built-in international standard MODBUS protocol, convenient for customers to use remote communication operation, can provide isolation 485 communication interface expansion;
- Rich single-board interface resources, 7 ordinary DI inputs, 1 high-speed DI input, 2 relay outputs, 1 open collector output, 2 analog inputs, 1 high-speed pulse output, a variety of IO expansion interfaces are optional, can meet the needs of most customers such as output interface;
- Communication can be used to realize the function of digital frequency divider, realize the cascade transmission of operating frequencies of multiple frequency converters, and improve stability and accuracy;
- The analog linearity is optimized, the detection accuracy of analog input is up to 0.1%;
- Add through-the-wall installation mode;
- The whole series adopts DC fans and sealed DC contactors, with higher reliability and stability, and can be directly used in EPS, DC inverter and other industries;
- The standard configuration of braking unit is extended from 15kW to 22kW, and the selection range of braking unit is extended from 18-30kW to 30-93kW;

Naming Rules



WS600 High Performance Vector Control Inverter Models and Technical Data

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600-3SR4G	1-phase 220V Range: - 15% ~ 20%	5.4	2.3	0.4
WS600-3SR75G		8.2	4.0	0.75
WS600-3S1R5G		14.0	7.0	1.5
WS600-3S2R2GB		23.0	9.6	2.2
WS600-3S4R0GB		32.0	17	4.0
WS600-3S5R5GB		45.0	25	5.5
WS600-4TR75GB		3.4	2.1	0.75
WS600-4T1R5GB/2R2PB	3-phase 380V Range: -15%~ 20%	5.0/5.8	3.8/5.1	1.5/2.2
WS600-4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
WS600-4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
WS600-4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
WS600-4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
WS600-4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
WS600-4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
WS600-4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
WS600-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
WS600-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0
WS600-4T030G(B)/037P(B)		62.0/76.0	60.0/75.0	30.0/37.0
WS600-4T037G(B)/045P(B)		76.0/92.0	75.0/90.0	37.0/45.0
WS600-4T045G(B)/055P(B)		92.0/113.0	90.0/110.0	45.0/55.0
WS600-4T055G(B)/075P(B)		113.0/157.0	110.0/152.0	55.0/75.0
WS600-4T075G(B)/093P(B)		157.0/180.0	152.0/176.0	75.0/93.0
WS600-4T093G(B)/110P(B)		180.0/214.0	176.0/210.0	93.0/110.0
WS600-4T110G/132P		214.0/256.0	210.0/253.0	110.0/132.0
WS600-4T132G/160P		256.0/307.0	253.0/304.0	132.0/160.0
WS600-4T160G/185P		307.0/345.0	304.0/340.0	160.0/185.0
WS600-4T185G/200P		345.0/385.0	340.0/380.0	185.0/200.0
WS600-4T200G/220P		385.0/430.0	380.0/426.0	200.0/220.0
WS600-4T220G/250P		430.0/468.0	426.0/465.0	220.0/250.0
WS600-4T250G/280P		468.0/525.0	465.0/520.0	250.0/280.0
WS600-4T280G/315P		525.0/590.0	520.0/585.0	280.0/315.0
WS600-4T315G/355P		590.0/665.0	585.0/650.0	315.0/355.0
WS600-4T355G/400P		665.0/785.0	650.0/725.0	355.0/400.0
WS600-4T400G/450P		785.0/883.0	725.0/820.0	400.0/450.0
WS600-4T450G/500P		883.0/920.0	820.0/900.0	450.0/500.0
WS600-4T500G/550P		920.0/1020.0	900.0/1000.0	500.0/550.0
WS600-4T550G/630P		1020.0/1120.0	1000.0/1100.0	550.0/630.0
WS600-4T630G		1120.0	1100.0	630.0
WS600-4T710G		1315.0	1250	710.0
WS600-4T800G		1525.0	1450	800.0

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600-7T011GB	660-690	15.6	15.0	11
WS600-7T015GB	660-690	21.0	20.0	15
WS600-7T018GB	660-690	26.0	24.0	18
WS600-7T022GB	660-690	32.0	28.0	22
WS600-7T030G(B)	660-690	42.0	38.0	30
WS600-7T037G(B)	660-690	49.5	47.0	37
WS600-7T045G(B)	660-690	58	55.0	45
WS600-7T055G(B)	660-690	70.0	65.0	55
WS600-7T075G(B)	660-690	90.0	86.0	75
WS600-7T093G(B)	660-690	105.0	100.0	93
WS600-7T110G	660-690	130.0	120.0	110
WS600-7T132G	660-690	170.0	150.0	132
WS600-7T160G	660-690	200.0	175.0	160
WS600-7T185G	660-690	208.0	198.0	185
WS600-7T200G	660-690	235.0	215.0	200
WS600-7T220G	660-690	247.0	245.0	220
WS600-7T250G	660-690	265.0	260.0	250
WS600-7T280G	660-690	305.0	299.0	280
WS600-7T315G	660-690	350.0	330.0	315
WS600-7T355G	660-690	382.0	374.0	355
WS600-7T400G	660-690	435.0	410.0	400
WS600-7T450G	660-690	490.0	465.0	450
WS600-7T500G	660-690	595.0	550.0	500
WS600-7T550G	660-690	605.0	600.0	550
WS600-7T630G	660-690	684.0	650.0	630
WS600-7T710G	660-690	768.5	730.0	710

Technical Parameters

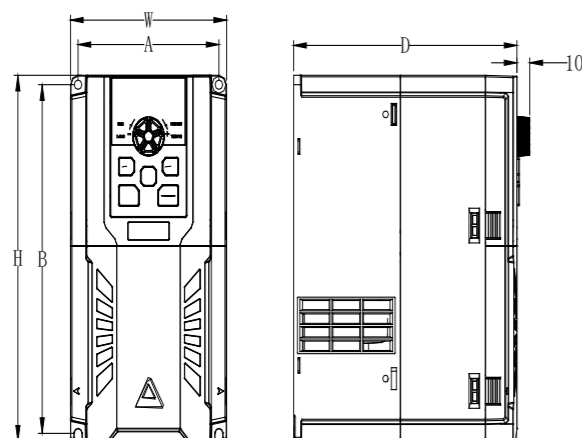
WS600S Permanent Magnet Synchronous Direct Drive Inverter Model and Technical Data

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600S-3SR4G	1-phase 220V Range: -15% ~ 20%	5.4	2.3	0.4
WS600S-3SR75G		8.2	4.0	0.75
WS600S-3S1R5G		14.0	7.0	1.5
WS600S-3S2R2GB		23.0	9.6	2.2
WS600S-3S4R0GB		32.0	17	4.0
WS600S-3S5R5GB		45.0	25	5.5
WS600S-4TR75GB		3.4	2.1	0.75
WS600S-4T1R5GB/2R2PB	5.0/5.8	3.8/5.1	1.5/2.2	
WS600S-4T2R2GB/4R0PB	5.8/10.5	5.1/9.0	2.2/4.0	
WS600S-4T4R0GB/5R5PB	10.5/14.6	9.0/13.0	4.0/5.5	
WS600S-4T5R5GB/7R5PB	14.6/20.5	13.0/17.0	5.5/7.5	
WS600S-4T7R5GB/9R0PB	20.5/22.0	17.0/20.0	7.5/9.0	
WS600S-4T9R0GB/011PB	22.0/26.0	20.0/25.0	9.0/11.0	
WS600S-4T011GB/015PB	26.0/35.0	25.0/32.0	11.0/15.0	
WS600S-4T015GB/018PB	35.0/38.5	32.0/37.0	15.0/18.5	
WS600S-4T018GB/022PB	38.5/46.5	37.0/45.0	18.5/22.0	
WS600S-4T022GB/030PB	46.5/62.0	45.0/60.0	22.0/30.0	
WS600S-4T030G(B)/037P(B)	62.0/76.0	60.0/75.0	30.0/37.0	
WS600S-4T037G(B)/045P(B)	76.0/92.0	75.0/90.0	37.0/45.0	
WS600S-4T045G(B)/055P(B)	92.0/113.0	90.0/110.0	45.0/55.0	
WS600S-4T055G(B)/075P(B)	113.0/157.0	110.0/152.0	55.0/75.0	
WS600S-4T075G(B)/093P(B)	157.0/180.0	152.0/176.0	75.0/93.0	
WS600S-4T093G(B)/110P(B)	180.0/214.0	176.0/210.0	93.0/110.0	
WS600S-4T110G/132P	214.0/256.0	210.0/253.0	110.0/132.0	
WS600S-4T132G/160P	256.0/307.0	253.0/304.0	132.0/160.0	
WS600S-4T160G/185P	307.0/345.0	304.0/340.0	160.0/185.0	
WS600S-4T185G/200P	345.0/385.0	340.0/380.0	185.0/200.0	
WS600S-4T200G/220P	385.0/430.0	380.0/426.0	200.0/220.0	
WS600S-4T220G/250P	430.0/468.0	426.0/465.0	220.0/250.0	
WS600S-4T250G/280P	468.0/525.0	465.0/520.0	250.0/280.0	
WS600S-4T280G/315P	525.0/590.0	520.0/585.0	280.0/315.0	
WS600S-4T315G/355P	590.0/665.0	585.0/650.0	315.0/355.0	
WS600S-4T355G/400P	665.0/785.0	650.0/725.0	355.0/400.0	
WS600S-4T400G/450P	785.0/883.0	725.0/820.0	400.0/450.0	
WS600S-4T450G/500P	883.0/920.0	820.0/900.0	450.0/500.0	
WS600S-4T500G/550P	920.0/1020.0	900.0/1000.0	500.0/550.0	
WS600S-4T550G/630P	1020.0/1120.0	1000.0/1100.0	550.0/630.0	
WS600S-4T630G	1120.0	1100.0	630.0	
WS600S-4T710G	1315.0	1250	710.0	
WS600S-4T800G	1525.0	1450	800.0	

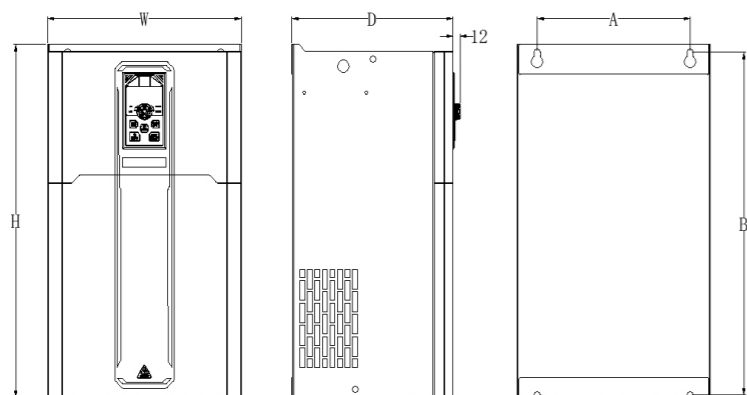
Technical Parameters

Inverter model	Input voltage (V)	Input current (A)	Output current (A)	Suitable motor (kW)
WS600S-7T011GB	660-690	15.6	15.0	11
WS600S-7T015GB	660-690	21.0	20.0	15
WS600S-7T018GB	660-690	26.0	24.0	18
WS600S-7T022GB	660-690	32.0	28.0	22
WS600S-7T030G(B)	660-690	42.0	38.0	30
WS600S-7T037G(B)	660-690	49.5	47.0	37
WS600S-7T045G(B)	660-690	58	55.0	45
WS600S-7T055G(B)	660-690	70.0	65.0	55
WS600S-7T075G(B)	660-690	90.0	86.0	75
WS600S-7T093G(B)	660-690	105.0	100.0	93
WS600S-7T110G	660-690	130.0	120.0	110
WS600S-7T132G	660-690	170.0	150.0	132
WS600S-7T160G	660-690	200.0	175.0	160
WS600S-7T185G	660-690	208.0	198.0	185
WS600S-7T200G	660-690	235.0	215.0	200
WS600S-7T220G	660-690	247.0	245.0	220
WS600S-7T250G	660-690	265.0	260.0	250
WS600S-7T280G	660-690	305.0	299.0	280
WS600S-7T315G	660-690	350.0	330.0	315
WS600S-7T355G	660-690	382.0	374.0	355
WS600S-7T400G	660-690	435.0	410.0	400
WS600S-7T450G	660-690	490.0	465.0	450
WS600S-7T500G	660-690	595.0	550.0	500
WS600S-7T550G	660-690	605.0	600.0	550
WS600S-7T630G	660-690	684.0	650.0	630
WS600S-7T710G	660-690	768.5	730.0	710

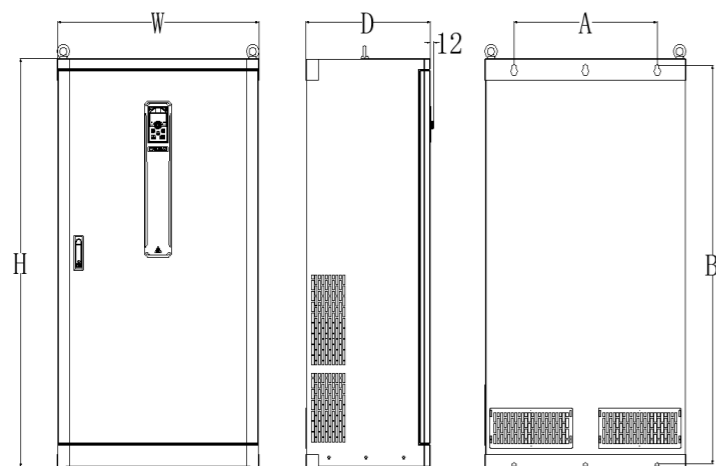
Outline Dimension & Installation Hole Size



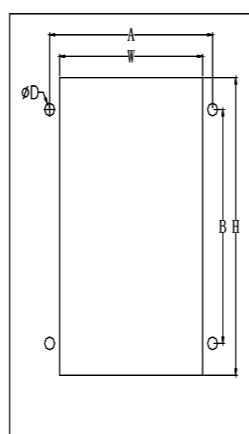
Outline dimension and structure diagram below 22kW



Outline dimension and structure diagram between 30-132kW



WS600/WS600S Outline dimensions and installation hole size



WS600/WS600S Inverter
Through-wall opening
size and installation hole
size below 22kW

Outline Dimension & Installation Hole Size

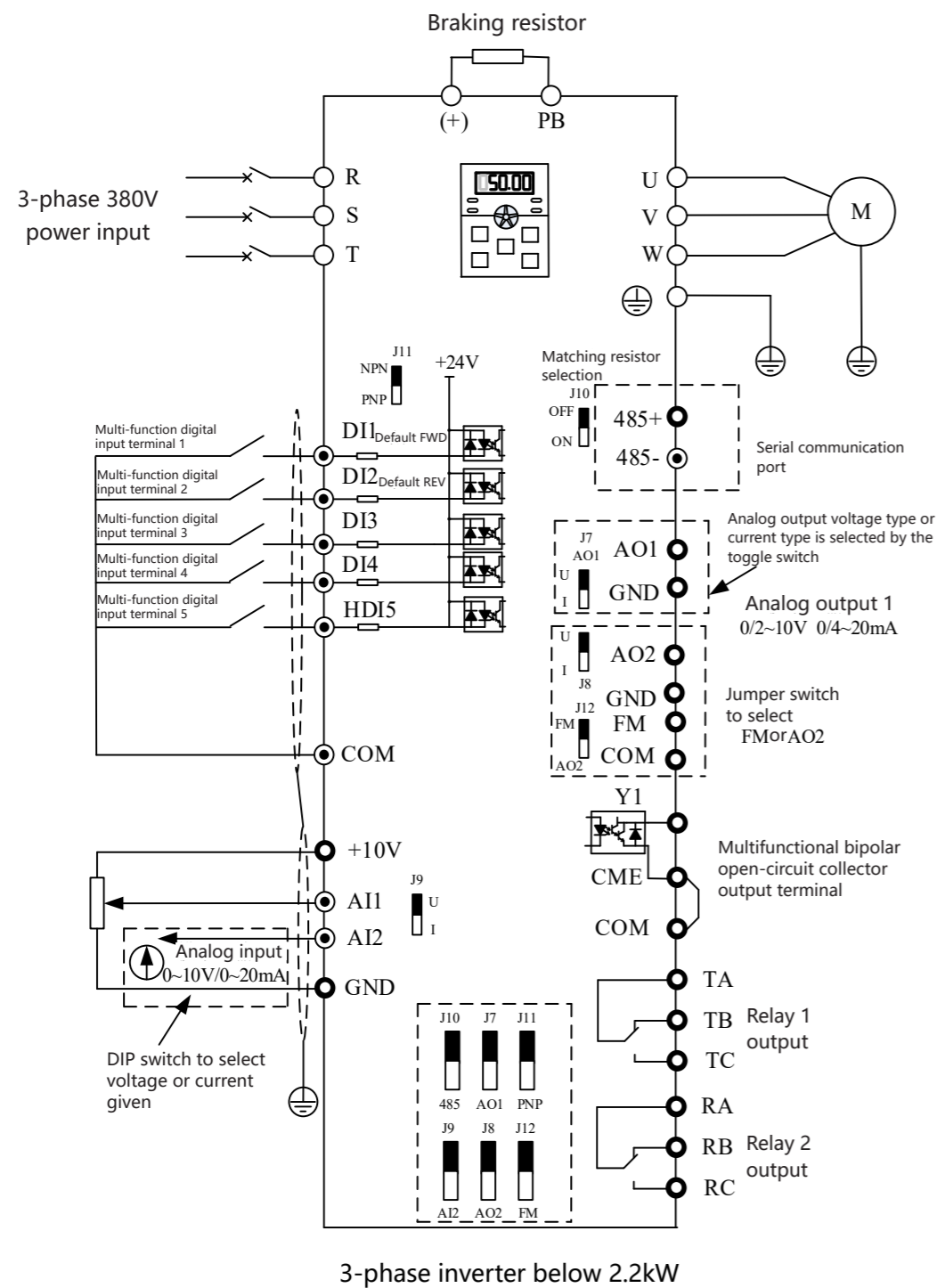
Inverter model	Installation hole		Overall dimension			Mounting aperture (mm)
	A (mm)	B (mm)	H (mm)	W(mm)	D (mm)	
WS600-3SR4G	76	156	165	86	140	Φ5
WS600-3SR75G						
WS600-3S1R5G						
WS600-B4TR75GB	76	156	165	86	140	Φ5
WS600-B4T1R5GB/2R2PB						
WS600-C4T2R2GB						
WS600-4T4R0GB/5R5PB	98	182	192	110	165	Φ5
WS600-4T5R5GB/7R5PB						
WS600-4T7R5GB/9R0PB	111	223	234	123	176	Φ6
WS600-4T9R0GB/011PB						
WS600-4T011GB/015PB	147	264	275	160	186	Φ6
WS600-4T015GB/018PB						
WS600-4T018GB/022PB	174	319	330	189	186	Φ6
WS600-4T022GB/030PB						
WS600-4T030G(B)/037P(B)	200	410	425	255	206	Φ7
WS600-4T037G(B)/045P(B)						
WS600-4T045G(B)/055P(B)	245	518	534	310	258	Φ10
WS600-4T055G(B)/075P(B)						
WS600-4T075G(B)/093P(B)	290	544	560	350	268	Φ10
WS600-4T093G(B)/110P(B)						
WS600-4T110G/132P	320	678	695	410	295	Φ10
WS600-4T132G/160P						
WS600-4T160G/185P	380	1025	1050	480	330	Φ10
WS600-4T185G/200P						
WS600-4T200G/220P	500	1170	1200	590	365	Φ14
WS600-4T220G/250P						
WS600-4T250G/280P						
WS600-4T280G/315IP						

WS600/WS600S Outline dimensions and installation hole size

Inverter model	Installation hole		Through-wall opening size		Mounting aperture (mm)
	A (mm)	B (mm)	H (mm)	W (mm)	
WS600-4TR75GB	144	127	167	88	Φ5
WS600-4T1R5GB/2R2PB					
WS600-4T2R2GB					
WS600-4T4R0GB/5R5PB	129	144	194	112	Φ5
WS600-4T5R5GB/7R5PB					
WS600-4T7R5GB/9R0PB	142	196	236	125	Φ6
WS600-4T9R0GB/011PB					
WS600-4T011GB/015PB	180	227	277	162	Φ6
WS600-4T015GB/018PB					
WS600-4T018GB/022PB	209	283	333	191	Φ6
WS600-4T022GB/030PB					
WS600-4T030G(B)/037P(B)	275	358	408	257	Φ7
WS600-4T037G(B)/045P(B)					
WS600-4T045G(B)/055P(B)	330	477	527	312	Φ9
WS600-4T055G(B)/075P(B)					
WS600-4T075G(B)/093P(B)	370	503	553	352	Φ9
WS600-4T093G(B)/110P(B)					

WS600/WS600S Inverter Through-wall opening size and installation hole size below 22kW

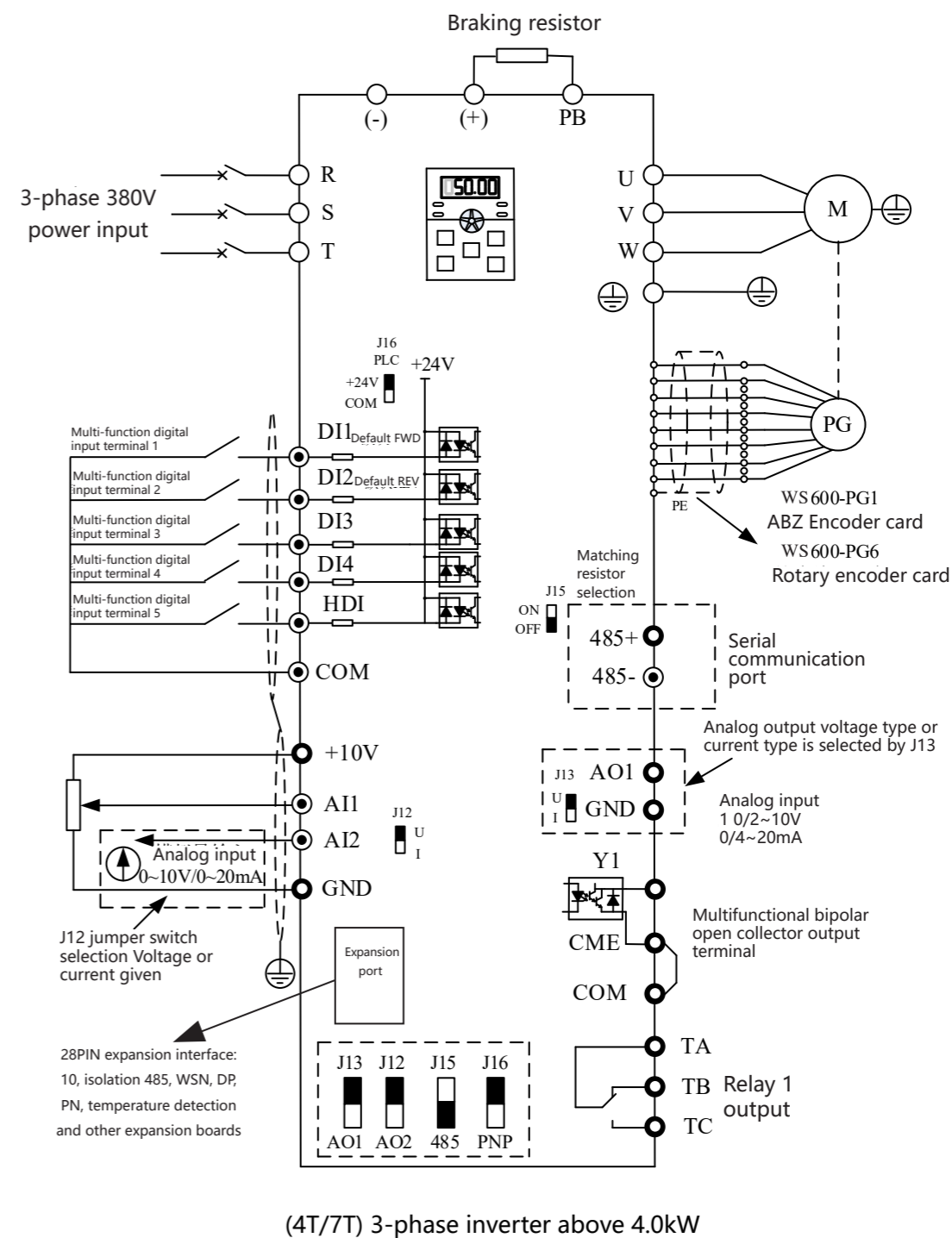
Wiring Mode



GND	A01	485-	DI1	DI2	DI3	DI4	HDI5	+24V	RA	RB	RC
+10V	AI1	AI2	485+	CME	COM	Y1	AO2	COM	TA	TB	TC

3-phase 380V terminal arrangement of control circuit below 2.2 kW

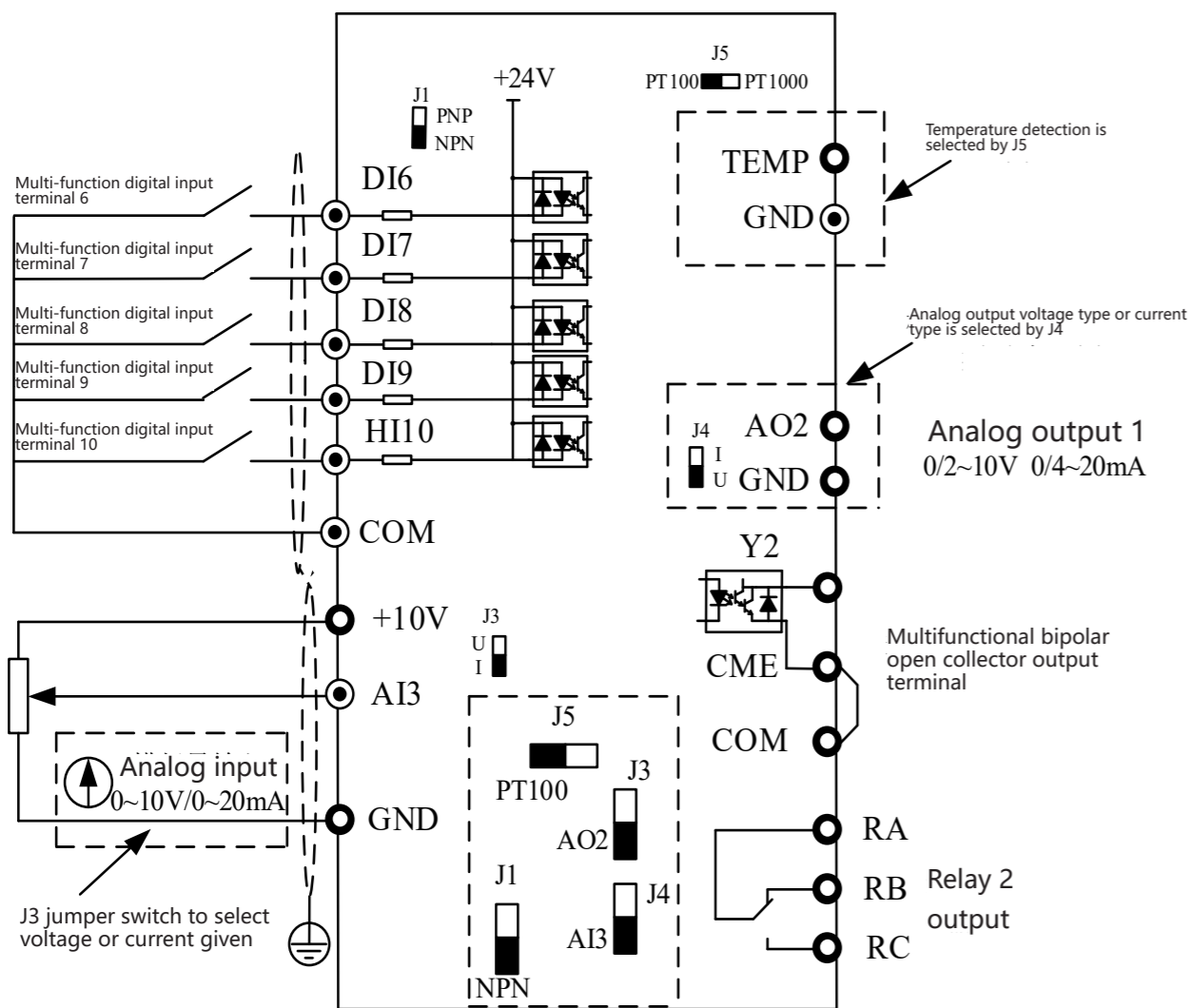
Wiring Mode



+10V	AI1	AI2	DI1	DI2	DI3	DI4	HDI	T/A	T/B	T/C
GND	GND	A01	485+	485-	CME	COM	Y1	FM	COM	+24V

3-phase 380V/660V 4.0kW and above control circuit terminal arrangement

Wiring Mode



4.0kW and above with expansion interface

RA	RB	RC	COM	DI6	DI7	DI8
GND	TEMP	AI3	AO2	DI9	DI10	Y2

3-phase 380V/660V 4.0kW and above control circuit terminal arrangement

Terminal Definition

Category	Terminal lable	Name	Terminal function description and specifications	
Analog	10V	Reference power	+10V, Max. allowable output current 100mA	
	AI1	Analog input 1	Input voltage range: 0 ~ 10V (input impedance: 30kΩ) Input current range: 0 ~ 20mA (input impedance: 500Ω)	
	AI2	Analog input 2	Input voltage range: 0 ~ 10V (input impedance: 30kΩ) Input current range: 0 ~ 20mA (input impedance: 500Ω)	
	AO1	Analog output 1	Output voltage/current signal: 0 ~ 10V/0 ~ 20mA	
	AO2	Analog Output 2 - Extended	Output voltage/current signal: 0 ~ 10V/0 ~ 20mA	
	GND	Analog reference power ground		
Digital Input Output Terminal	P24	+24V Power supply	+24V Power supply for digital input, the max. allowable output current is 200mA	
	COM	Digital reference ground	Isolated from GND	
	CME	External digital ground reference or power interface	The digital output ground CME and the digital input ground COM are internally isolated, but CME and COM have been externally shorted before leaving the factory	
	DI1-DI4	Digital input	1. Internal impedance: 3.3kΩ 2. Accept 12~30V voltage input 3. This terminal is a bidirectional input terminal and supports both NPN and PNP connections 4. Max. input frequency: 1kHz 5. All are programmable digital input terminals, the user can set the terminal function through the function code	
	DI6-DI10	Digital input expansion		
	HDI	High-speed pulse input	50kHz HDI high frequency pulse input channel Max. input frequency: 50kHz	
	Y1	Digital output	Optocoupler isolation, bipolar open collector output Output voltage range: 0-24V Output current range: 0-50mA Note: The default Y1 is +24V drive, cannot be driven by an external power supply	
	FM (Optional Y2)	High-speed pulse output	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A TA-TB: Normally closed, TA-TC: Normally open	
	Relay Output Terminal	TA/TB/TC	Relay contact output	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A TA-TB: Normally closed, TA-TC: Normally open
		RA/RB/RC	Relay output expansion	Programmable output, contact capacity: 250VAC/3A or 30VDC/1A RA-RB: Normally closed, RA-RC: Normally open
Communication terminal	485+/485-	Communication Interface	RS485 communication/MODBUS	
Temperature	TEMP/GND	Temperature detection extension	PTC, KTY temperature probe and other motor temperature detection	

FREQUENCY CONVERTER



WSG20 Compact Vector Control Inverter

WSG20 series Inverter is a device for driving asynchronous motors, synchronous motors and Universal vector inverter for torque motors. Its performance is excellent, reliable and stable fixed, compact structure and easy to use. It can be widely used in CNC machine tools, Cables, papermaking, hoisting, hoisting, fans and pumps, petrochemical, Air compressor, textile machinery, plastic machinery, woodworking machinery, ceramic machine machinery, stone machinery and other industries.

Function Characteristics

Installation Advantages

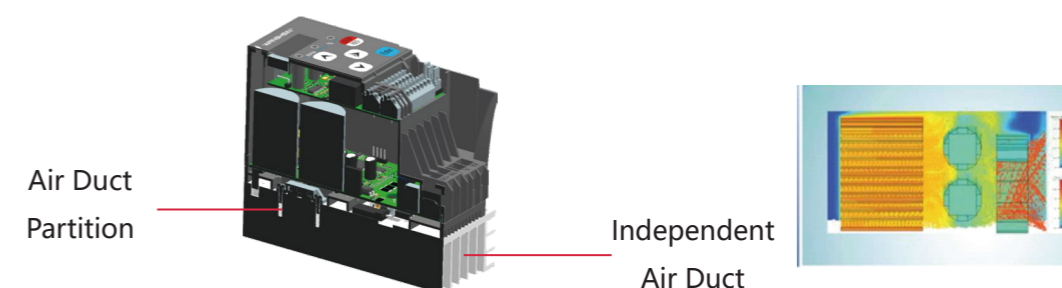


Metal mounting hole

- Full power, metal hole installation, not easy to break and deform.
- Metal positioning hole, super seismic resistance.
- High temperature resistance, large area radiator, scientific air duct design can quickly dissipate heat, reduce the temperature rise of the machine and extend service life.

Function Characteristics

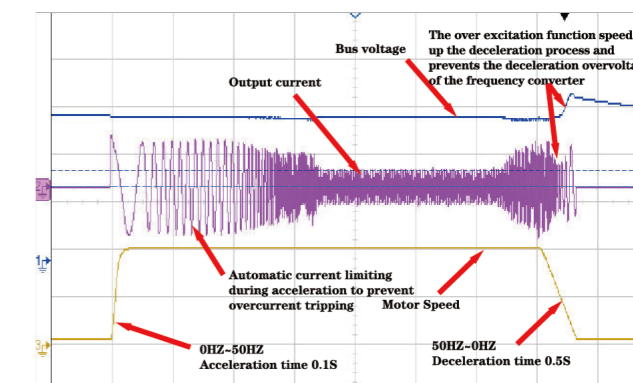
The protective design makes the operation more stable and reliable



- EMC design, through many experiments and tests to meets the high standard EMC requirements, effectively reduces external interference and meets the requirements of accurate control.
- Fully enclosed enclosure + independent air duct design to isolate dust to the greatest extent and ensure the long-term stable operation of electronic components.
- Thicker paint, the IGBT pin is added with casing, the anti-seismic weak part is treated with glue, to improve the environmental coverage.

Excellent Performance

- The over excitation function is automatically added in the deceleration process to shorten the deceleration time.
- Larger rated current design, larger overload current and shorter acceleration time.
- Strong overload suppression capability ensures that the frequency converter will not stop due to overload fault at maximum output.



Product Advantages

- **Powerful Protection Function**

In addition to the conventional protection function, we also design bus overcurrent protection, braking short circuit protection, motor short circuit to ground protection, 100m long line protection.

- **Dual CPU Design**

Dual CPU high-speed and effective communication, function chips and performance chips cooperation together, promote the perfect integration of function and performance, and speed control with faster torque response, significantly improved overload capacity and low-frequency torque, more accurate, more reliable and stable motor parameter self-learning.

- **Excellent Electrical Performance**

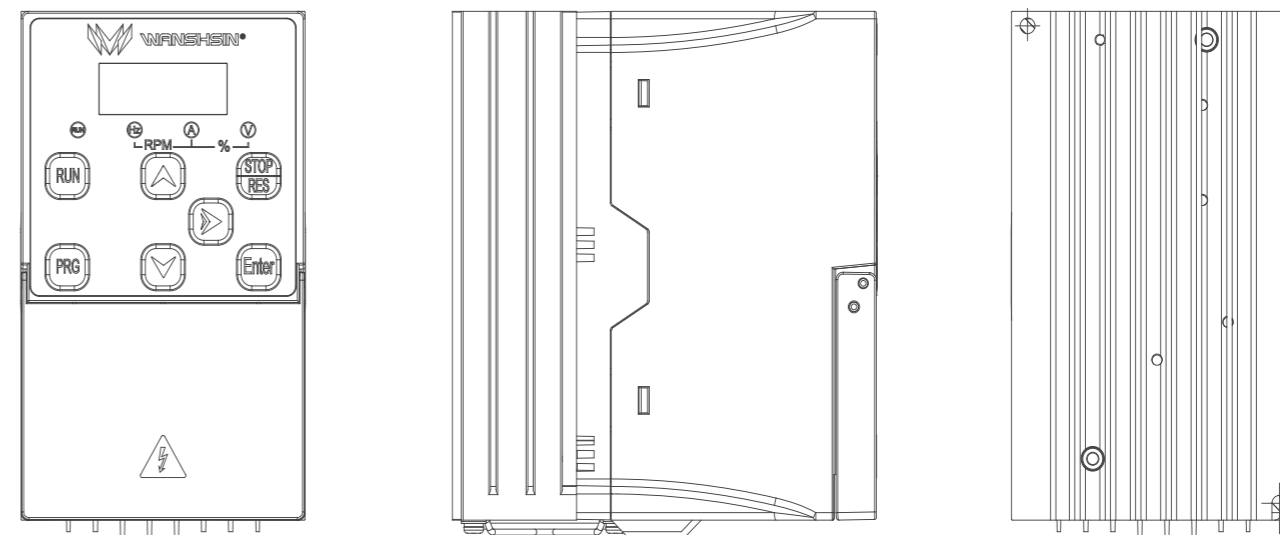
Independent research and development of high-performance software algorithms has improved the common problems in the industry, it has more reliable overvoltage stall function, overcurrent stall function, DC braking function and more accurate and intelligent PID function.



Easy & Convenient

- Built in industry professional macro application, supporting one key setting of industry parameters; Support external keyboard.

Technical Specifications



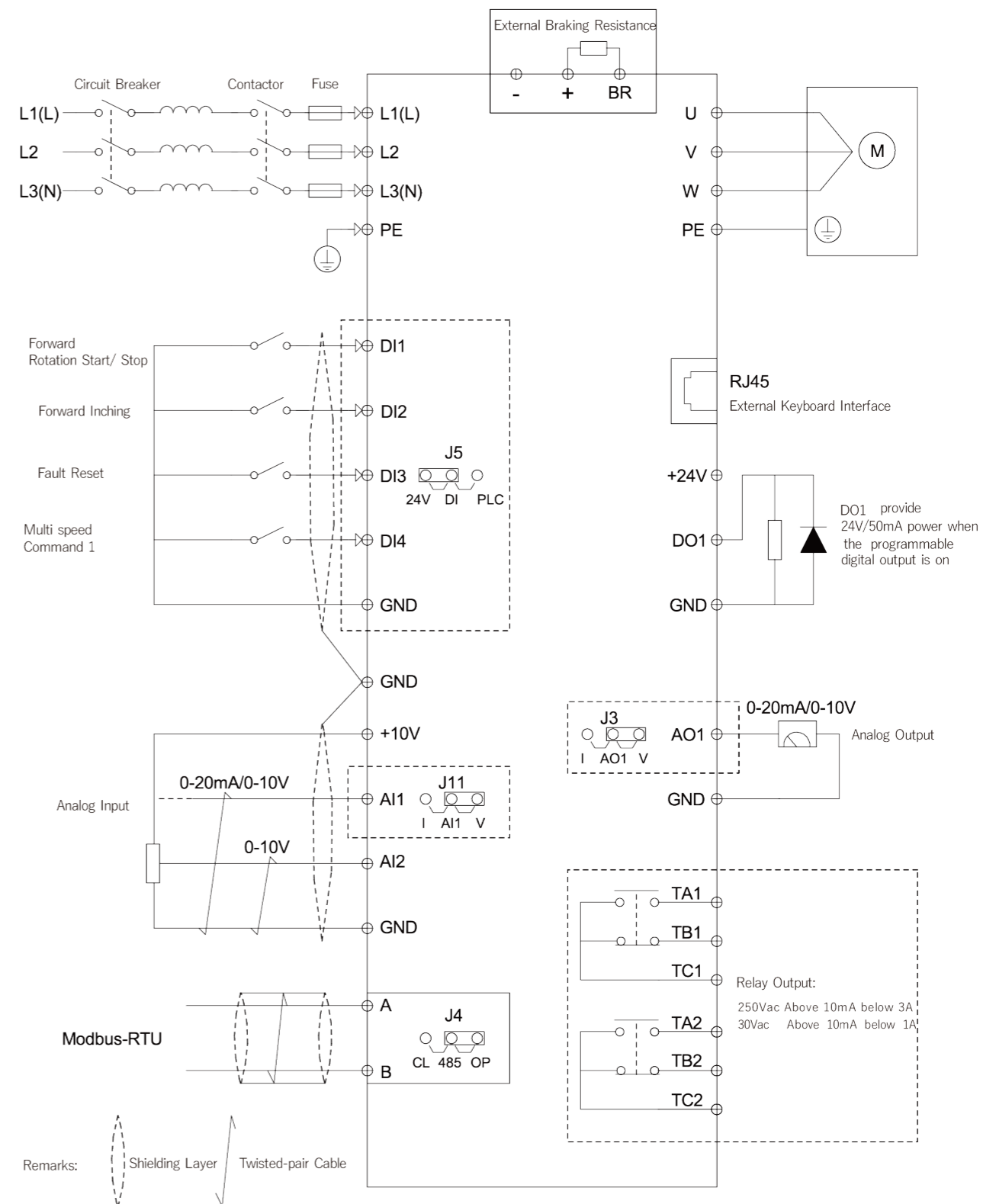
VFD Type	Overall Dimension			Installation Locating Hole		Power
	H(mm)	W(mm)	D(mm)	A(mm)	B(mm)	
WSG20-2S0004 -(B)	140.5	80	119.5	71	127.6	0.4KW
WSG20-2S0007 -(B)						0.75KW
WSG20-2S0015 -(B)						1.5KW
WSG20-2S0022 -(B)	157	102	149	93	143	2.2KW
WSG20-4T0007 -(B)						0.75KW
WSG20-4T0015 -(B)						1.5KW
WSG20-4T0022 -(B)	209	130	152.5	120.8	189.8	2.2KW
WSG20-4T0040 -(B)						4KW
WSG20-4T0055 -(B)						5.5KW
WSG20-4T0075 -(B)						7.5KW

VFD Type	Input Voltage	Output Voltage	Input Current (A)	Output Current (A)	Adaptive Motor (KW)
WSG20-2S0004 -(B)	1-phase AC220V input range AC200~AC240	3P output range AC0~AC240V	5.4	2.3	0.4
WSG20-2S0007 -(B)			8.2	4.0	0.75
WSG20-2S0015 -(B)			14.0	7.0	1.5
WSG20-2S0022 -(B)			23.0	9.6	2.2
WSG20-4T0007 -(B)	3-phase AC380V input range AC380~AC480	3P output range AC0~AC480V	3.4	2.1	0.75
WSG20-4T0015 -(B)			5.0	3.8	1.5
WSG20-4T0022 -(B)			6	5.1	2.2
WSG20-4T0040 -(B)			11	10.0	4.0
WSG20-4T0055 -(B)			15	13.0	5.5
WSG20-4T0075 -(B)			17.8	17.0	7.5

Basic Function	Max Frequency	0 ~ 500Hz
	Carrier Frequency	1kHz ~ 15kHz The carrier frequency can be automatically adjusted according to the load characteristics.
	Input Frequency Resolution	Digital setting:0.01Hz Analog setting:Max frequency ×0.025%
	Control Mode	V/F control and SVC control
	Overload Capacity	150% rated current 60s; 180% rated current 2s
	Torque Lifting	Automatic torque;Manual torque lifting 0.1%~30.0%
	V/F Curve	Multiple type:Linear type;Multipoint type; V/F complete separation type; V/F half separation type
	Acceleration and Deceleration Curve	Linear acceleration and deceleration mode, dynamic S-curve, 2 types of acceleration and deceleration time, acceleration and deceleration time range 0.0~6500.0s.
	DC Braking	DC Braking Frequency:0.00Hz ~ Max.Frequency braking time:0.0s ~ 36.0s;Braking action current value:0.0% ~ 100.0%
	Inching Control	Inching frequency scope: 0.00Hz ~ 50.00Hz
	Multi Section Operation	Deceleratio and acceletion time:0.0s ~ 6500.0s,up to 16 section speed operation through the control terminal.
	Built in PID	It is convenient to realize the process control closed-loop control system.
	Automatic Voltage Regulati(AVR)	When the grid voltage changes,it can automatically keep the output voltage constant.
	Overvoltage Overcurrent Stall Control	Automatically limit the voltage during opertion to prevent frequent overvoltage tripping.
	Fast Current Limiting Function	Minimize the overcurrent fault and protect the nomal operation of the frequency converter.
	Instant Stop	In case of instantaneous power failure,the load feedback energy compensates for the reduction of voltage to maintain the continuous operation of the driver for a short time and enter the instantaneous stop state,the panel run indicator flashes.
Fast Current Limiting	Avoid frequency overcurrent faults of the drive	
Timing Control	Timing control function:Setting time scope 0.0Min~ 6500.0Min	
Communication Bus	Support: RS485	
Operation	Command Source	Operation panel given,control terminal given and serial communication port given.It can be switched in many ways.
	Frequency Source	9 types frequency source:digital setting(No memory after power failure);digital setting(with memory after power failure);Ai1(Analog voltage and current);Ai2;Plus setting(Di4);Multi segment instruction;Simple PLC;PID;Communication given.It can be switched in many ways.
	Auxiliary Frequency Source	9 auxiliary frequency sources.It can flexibly realize auxiliary frequency fine adjustment and frequency synthesis.
	Input Terminal	4 digital input terminals,one of which supports high-speed pulse input up to 50KHz;2 analog input terminals,- supporting 0~10V/0~20mA input.
	Output Terminal	2 relay output terminal and one analog output terminal,supporting 0~10V voltage output;1digital output terminal can be used for high-speed pulse output,with the maximum frequency up to 50KHz.It can also be used as open collector output for switching value .
Communication Terminal	1 channel 485 communication	
Display and Keyboard Operation (Format)	LED Display	Display parameters
	Key Locking/Function Selection	Realize partial or full locking of keys,and define the scope of action of some keys to prevent misoperation.
	Protection Function	Power on motor short circuit detection,input and output phase loss protection,overcurrent protection,overvoltage protection,undervoltage protection,overheating protection,overload protection,etc.
Environment	Place of Use	Indoor, free from direct sunlight , no dust, corrosive gas, combustibile gas, oil mist, water vapor, dripping or salt,etc.
	Altitude	The maximum is 3000m.In areas with an altitude of more than 1000m,the heat dissipation effect of the frequency converter is poor due to thin air.It needs to be reduced for use ,every time it increases 1% derating required for 100m.
	Environment Temperature	-10°C~+50°C (The ambient temperature is 40°C~50°C, please reduce the amont for use)
	Humidity	Less than 95%RH, no water droplet condensation.
	Vibration	Less than 5.9m/s2(0.6g)
	Storage Temperature	-20°C~+60°C
	Protection Grade	Ip20
Power Grid	Applicable Grid System	TN, TT or IT type

Terminal Wiring

The following figure shows the wiring diagram of models with 3-phase 380V of 0.75KW ~ 5.5kW and 1-phase 220V of 0.4KW ~ 2.2kW, as shown in the figure below



Construction Elevator

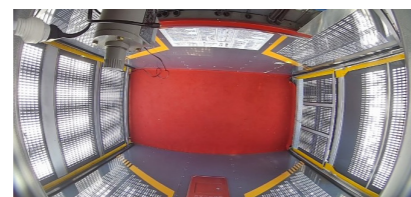


CE100 Construction Elevator Variable Frequency Driver

CE100 series variable frequency driver is a special model developed for the electronic control of cargo construction elevator. The system integrates the functions of frequency inverter, wireless video monitoring, wireless voice intercom, wireless remote control, logic control unit, brake control unit and lifting weight limiter. It can be installed in three methods: wall hanging, semi embedded and full embedded. It has the advantages of comprehensive function, stable performance, exquisite appearance and convenient installation and maintenance, It provides customers with a set of high-performance and complete solutions.

Function and Performance Characteristics

- **Wireless Video Monitoring:** the fisheye camera is used for the first time in the industry, and there is no any dead angle in the elevator cage;



- **Wireless Voice Intercom:** video monitoring has its own voice intercom function, so that the operator can understand the operation in the cage in real time, so as to facilitate timely communication with on-site workers and improve the transportation efficiency of the elevator;

- **Automatic Leveling Function:** automatically run in position after input the floor to reduce the working intensity of the operator. Leveling position is accurate ($\leq 5\text{mm}$);

- **Floor Pager Control Function:** after meeting the operating conditions of the lift, press the floor caller of the corresponding floor, then the lift will automatically move to the floor. Close the discharge door after the worker carrying things, and press the floor caller on your floor, then the lift will automatically operate to the 1st floor.



Driver

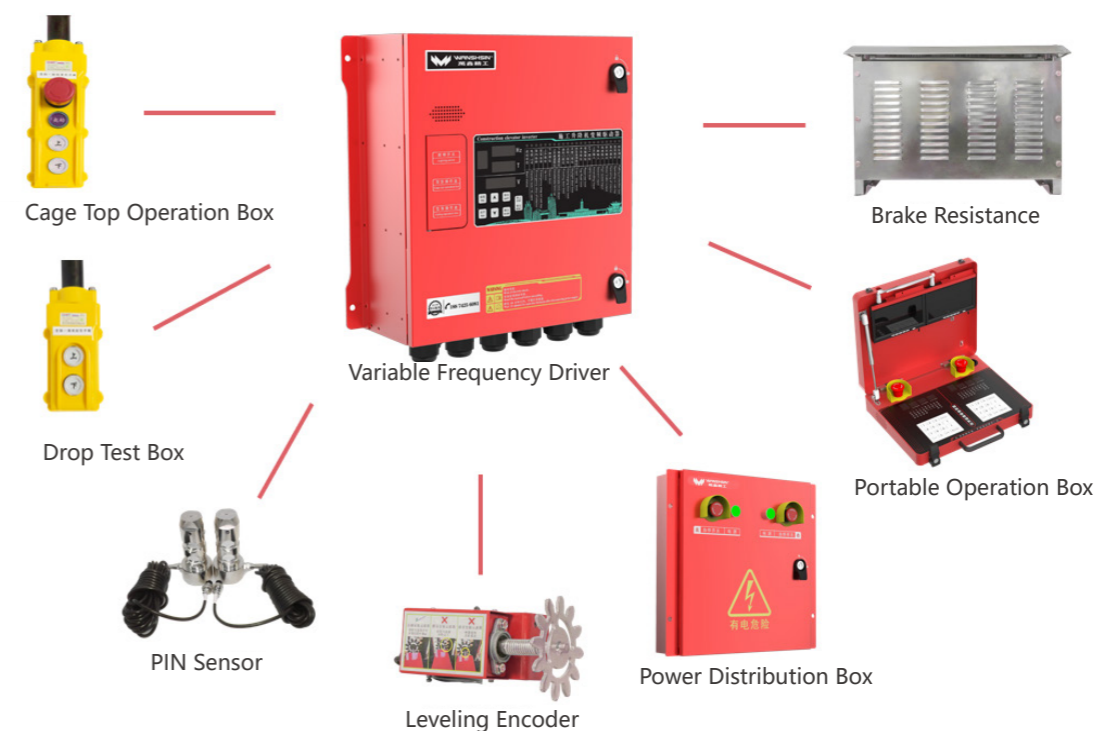


Electric Box

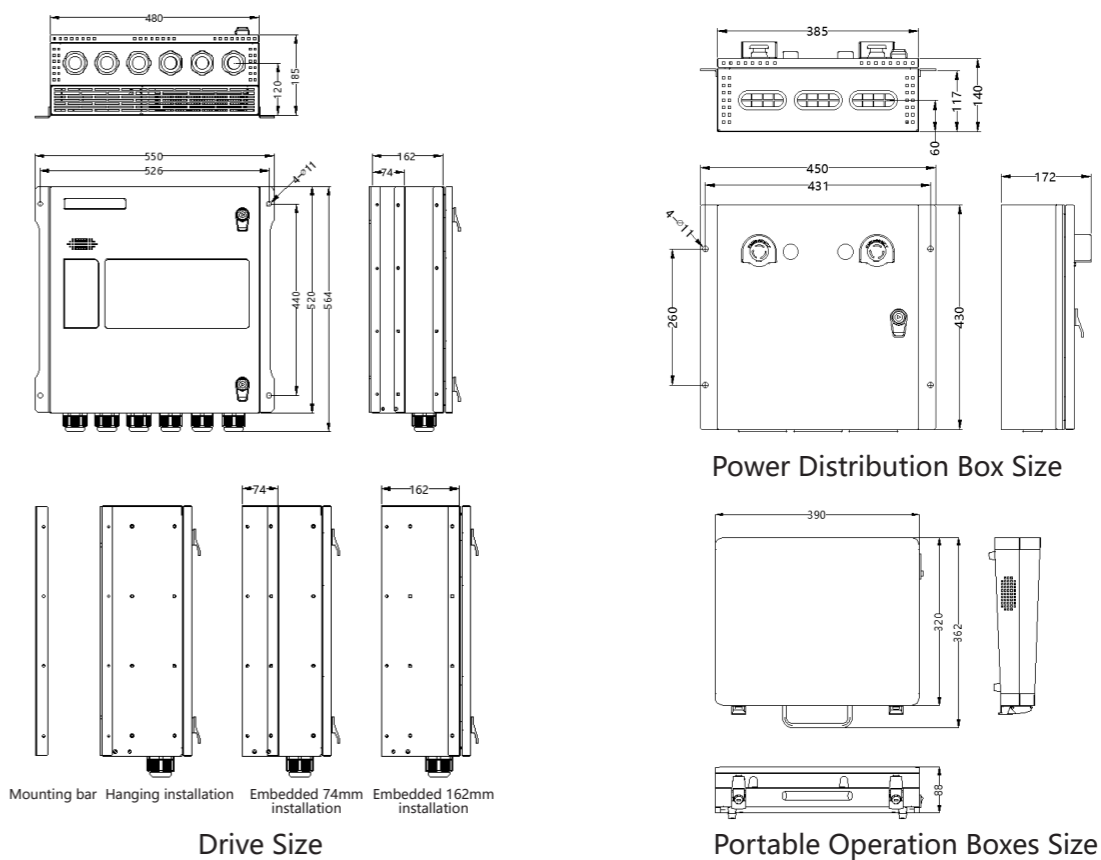


Portable Operation Box

Complete System Composition



Product Parameters



Mounting bar Hanging installation Embedded 74mm installation Embedded 162mm installation

Drive Size

Power Distribution Box Size

Portable Operation Boxes Size

Construction Elevator

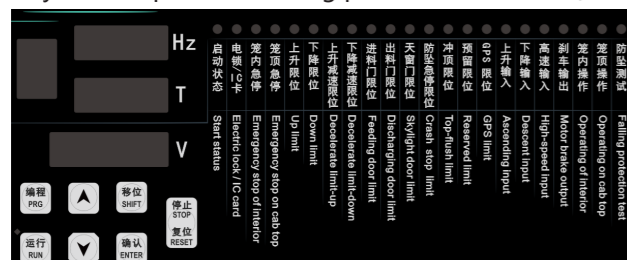


CE200 Variable Frequency Driver of Dual Purpose Construction Elevator

CE200 series variable frequency driver is a special machine developed for the electric control of construction lifts. The system integrates the functions of frequency inverter, brake unit, logic control unit, brake control unit and lifting weight limiter. There are three installation methods including wall hanging, semi-embedded and fully embedded. It provides customers with a set of high-performance complete solution, with comprehensive function, stable performance, beautiful appearance, easy installation and maintenance, etc. advantages.

Function & Performance Characteristics

- **Door Panel Display:** the running frequency and load information are displayed on door panel in real time, all position limits, handle input and brake output will be indicated by separate indicator lights;
- **Voice Function:** rich voice broadcast content, with separate voice prompt for common faults, together with the door display information, it greatly improves the fault diagnosis efficiency;
- **Short Circuit Protection of Brake Resistance:** the built-in brake unit has the function of brake resistance short circuit protection;
- **Brake Coil Short Circuit Protection Function:** real-time monitoring brake coil current value, input will be cut off immediately under abnormal situation to protect brake coil and internal devices;
- **Various Installation Methods:** wall hanging, semi-embedding and full-embedding can be adopted;
- **Pre-Authorization Function:** the system has built-in perpetual calendar clock and can set 3 periods of equipment authorization time with independent password, which is convenient for users to manage the installment collection of equipment;
- **Special Holding Brake Control Logic:** the special holding brake control logic is realized through the current, frequency and delay time of the brake release, which ensures the safe and reliable operation of the lift ;
- **Human-machine Interface:** the interface display is optimized and upgraded/ Pictures are used instead of text description, and fault record function is added;
- **Automatic Leveling Function:** automatically run in position after input the floor to reduce the working intensity of the operator, leveling position is accurate ($\leq 5\text{mm}$) .

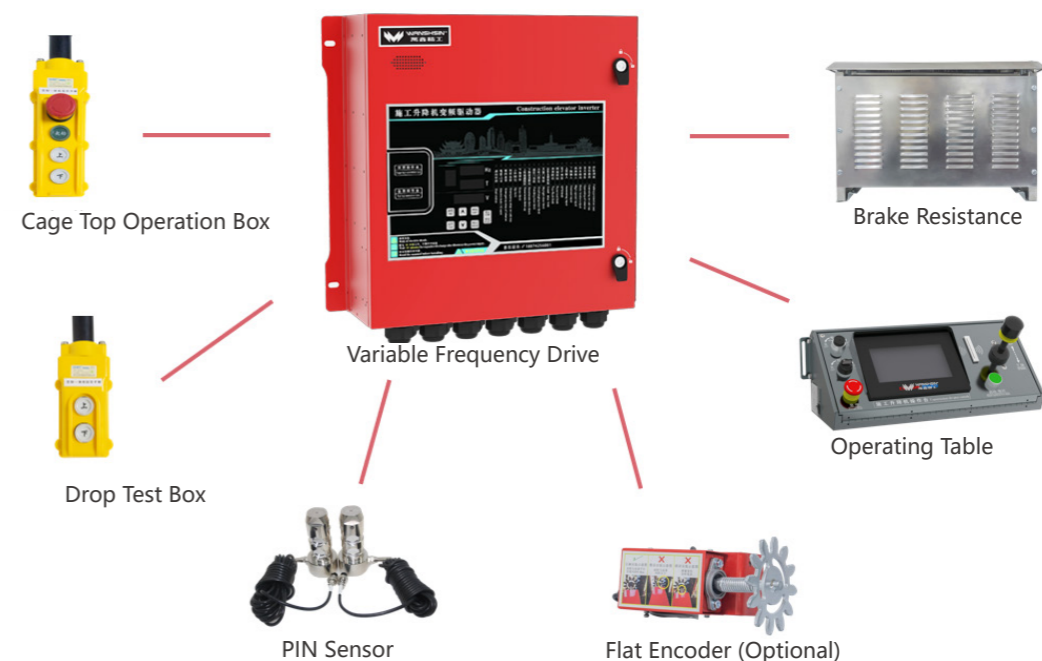


Door Panel Interface Display

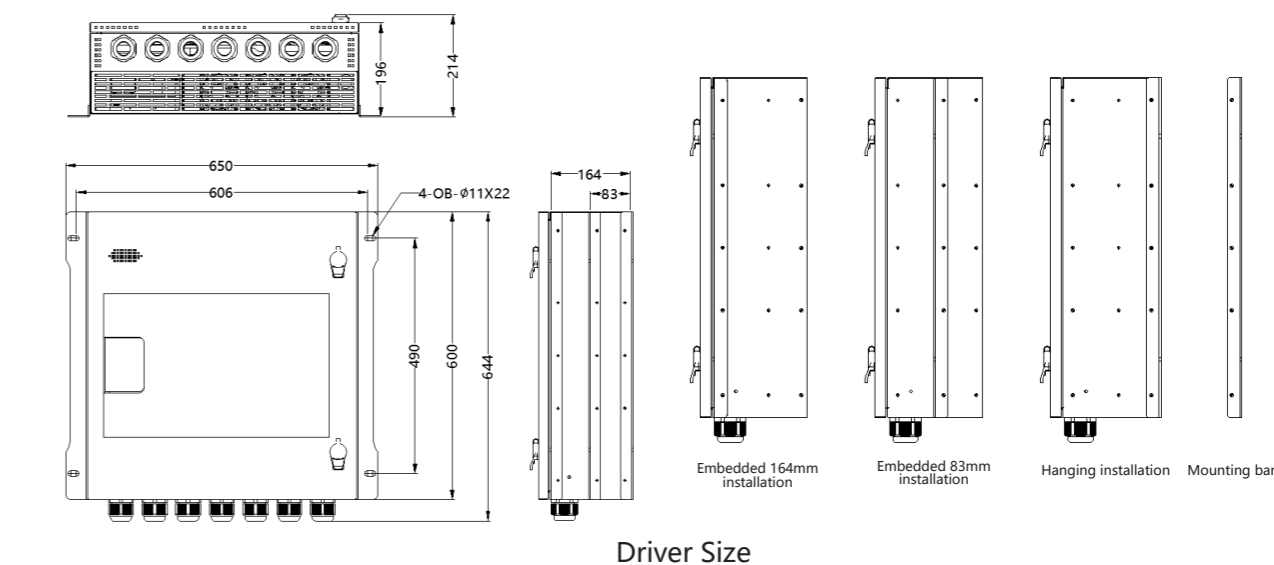


Human-machine Interface

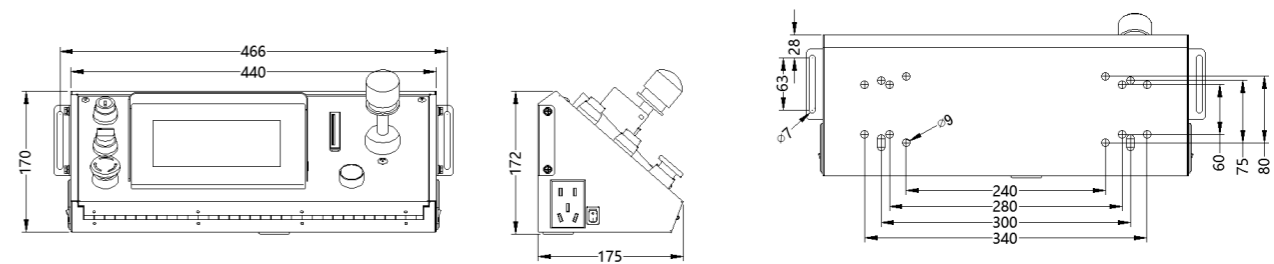
Complete System Composition



Product Parameter



Driver Size



Operating Table Size